

(Application Transmittal [4-1]—page 1 of 11)

1. Type of Application

This new application is for a(n)

(check one applicable item below)

- ☒ Original (nonprovisional)
☐ Design
☐ Plant

WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.

WARNING: Do not use this transmittal for the filing of a provisional application.

NOTE: If one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.

- ☐ Divisional.
☐ Continuation.
☐ Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. 112. Each prior application must also be:

(i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or

(ii) Complete as set forth in § 1.51(b); or

(iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or

(iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(f) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

WARNING: When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).

- ☐ The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed

A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 (Design) Application

 5 Pages of specification

 2 Pages of claims

 3 Sheets of drawing

WARNING: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 CFR 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page . . ." 37 C.F.R. 1.84(c)).

(complete the following, if applicable)

- ☐ The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).
- ☐ formal
- ☐ informal

B. Other Papers Enclosed

 6 Pages of declaration and power of attorney

 1 Pages of abstract

 Other

4. Additional papers enclosed

- ☐ Amendment to claims
- ☐ Cancel in this applications claims _____ before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
- ☐ Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)
- ☐ Preliminary Amendment
- ☒ Information Disclosure Statement (37 C.F.R. 1.98)
- ☒ Form PTO-1449 (PTO/SB/08A and 08B)
- ☒ Citations

- ☐ Declaration of Biological Deposit
- ☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
- ☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative
- ☐ Special Comments
- ☐ Other

5. Declaration or oath (including power of attorney)

NOTE: A newly executed declaration is not required in a continuation or divisional application provided that the prior nonprovisional application contained a declaration as required, the application being filed is by all or fewer than all the inventors named in the prior application, there is no new matter in the application being filed, and a copy of the executed declaration filed in the prior application (showing the signature or an indication thereon that it was signed) is submitted. The copy must be accompanied by a statement requesting deletion of the names of person(s) who are not inventors of the application being filed. If the declaration in the prior application was filed under § 1.47, then a copy of that declaration must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning person under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently executed declaration must be filed. See 37 C.F.R. §§ 1.63(c)(1)-(3).

NOTE: A declaration filed to complete an application must be executed, identify the specification to which it is directed, identify each inventor by full name including family name and at least one given name, without abbreviation together with any other given name or initial, and the residence, post office address and country or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 C.F.R. § 1.63(a)(1)-(4).

☒ Enclosed

Executed by

(check all applicable boxes)

☒ inventor(s).

☐ legal representative of inventor(s).
37 CFR 1.42 or 1.43.

☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.

☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.

☐ Not Enclosed.

NOTE: Where the filing is a completion in the U.S. of an International Application or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.

☐ Application is made by a person authorized under 37 C.F.R. 1.41(c) on behalf of all the above named inventor(s).

(The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).

☐ Showing that the filing is authorized.
(not required unless called into question. 37 CFR 1.41(d))

[illegible][illegible][illegible]

- B**

[illegible]

- [illegible]

B

[illegible]

- [illegible]

[illegible]

- [illegible]

- [illegible]

[illegible][illegible][illegible]

9. Certified Copy

Certified copy(ies) of application(s)

Country	Appln. No.	Filed
Finland	981274	June 4, 1998

Country	Appln. No.	Filed
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Country	Appln. No.	Filed
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from which priority is claimed

☒ is (are) attached.

☐ will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. 1.16)

A. ☒ Regular application .

CLAIMS AS FILED			
Number filed	Number Extra	Rate	Basic Fee 37 C.F.R. 1.16(a) \$760.00
Total			
Claims (37 CFR 1.16(c)) 7 - 20 = 0	x	\$ 18.00	
Independent			
Claims (37 CFR 1.16(b)) 1 - 3 = 0	x	\$ 78.00	
Multiple dependent claim(s), if any (37 CFR 1.16(d))			
	÷	\$ 260.00	

☐ Amendment cancelling extra claims is enclosed.

☐ Amendment deleting multiple-dependencies is enclosed.

☐ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation \$ 760.00

B. ☐ Design application
(\$ 310.00—37 CFR 1.16(f))

Filing Fee Calculation

\$ _____

C. ☐ Plant application
(\$ 480.00—37 CFR 1.16(g))

Filing fee calculation

\$ _____

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6600-3200000

[illegible]

- WARNING:** "Status as a small entity must be specifically established in each application or patent in which the status is available and desired. Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. The refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application requires a new determination as to continued entitlement to small entity status for the continuing or reissue application. A nonprovisional application claiming benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) of a prior application, or a reissue application may rely on a statement filed in the prior application or in the patent if the nonprovisional application or the reissue application includes a reference to the statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent and status as a small entity is still proper and desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).

☐ Status as a small entity was claimed in prior application
_____ / _____, filed on _____, from which benefit
is being claimed for this application under:

and which status as a small entity is still proper and desired.

- Filing Fee Calculation (50% of A, B or C above)

§ _____

12. Request for International-Type Search (37 C.F.R. 1.104(d))

☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

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13. Fee Payment Being Made at This Time

☐ Not Enclosed

☐ No filing fee is to be paid at this time.

(This and the surcharge required by 37 C.F.R. 1.16(e) can be paid subsequently.)

☒ Enclosed

☒ Filing fee \$ 760.00

☒ Recording assignment
(\$40.00; 37 C.F.R. 1.21(h))
(See attached "COVER SHEET FOR
ASSIGNMENT ACCOMPANYING NEW
APPLICATION".) \$ 40.00

☐ Petition fee for filing by other than all the
inventors or person on behalf of the inventor
where inventor refused to sign or cannot be
reached
(\$130.00; 37 C.F.R. 1.47 and 1.17(i)) \$

☐ For processing an application with a
specification in
a non-English language
(\$130.00; 37 C.F.R. 1.52(d) and 1.17(k)) \$

☐ Processing and retention fee.
(\$130.00; 37 C.F.R. 1.53(d) and 1.21(i)) \$

☐ Fee for international-type search report
(\$40.00; 37 C.F.R. 1.21(e)) \$

NOTE: 37 CFR 1.21(f) establishes a fee for processing and retaining any application that is abandoned for failing to complete the application pursuant to 37 CFR 1.53(f) and this, as well as the changes to 37 CFR 1.53 and 1.78(a)(1), indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid, or the processing and retention fee of § 1.21(f) must be paid, within 1 year from notification under § 53(f).

Total fees enclosed

\$ 800.00

14. Method of Payment of Fees

☒ Check in the amount of \$ 800.00

☐ Charge Account No. _____ in the amount of
\$ _____

A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

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λ	λ^2	λ^3	λ^4	λ^5	λ^6	λ^7	λ^8	λ^9	λ^{10}	λ^{11}	λ^{12}	λ^{13}	λ^{14}	λ^{15}	λ^{16}	λ^{17}	λ^{18}	λ^{19}	λ^{20}
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	4	8	16	32	64	128	256	512	1024	2048	4096	8192	16384	32768	65536	131072	262144	524288	1048576
3	9	27	81	243	729	2187	6561	19683	59049	177147	531441	1594323	4782969	14348907	43046721	129139263	387420585	1162261755	3486785265
4	16	64	256	1024	4096	16384	65536	262144	1048576	4194304	16777216	67108864	268435456	1073741824	4294967040	17179869440	68813926400	271735168000	1073741824000
5	25	125	625	3125	15625	78125	390625	1953125	9765625	48828125	244140625	1220703125	6103515625	30517578125	152587890625	762939453125	3814697265625	19073486328125	95367431640625
6	36	216	1296	7776	46656	279936	1679616	10077696	60466176	362793024	2176778176	13060669056	78364014720	470184088320	2821104529920	16926627178240	101559763069440	609358578416640	3656151230499840
7	49	343	2401	16807	117649	823543	5724253	39969769	279695321	1953537449	13674762143	95723335001	670063345007	4691443415049	32840103905341	229880727337387	1609165091361709	11264155639531963	78849089476723741
8	64	512	4096	32768	262144	2097152	16777216	134217728	1073741824	8589932032	68310067456	546480539648	4371844317184	34974754537472	279878036300160	2238944290401280	17911554323210240	143292434585683840	1146339476685470720
9	81	729	6561	59049	531441	4782969	43046721	387420585	3486785265	31381059685	282389727145	2541507544305	22873567908745	205862111178705	1852759000608345	16674831005475105	150073479049275945	1356661311843483505	12389951806591351545
10	100	1000	10000	100000	1000000	10000000	100000000	1000000000	10000000000	100000000000	1000000000000	10000000000000	100000000000000	1000000000000000	10000000000000000	100000000000000000	1000000000000000000	10000000000000000000	100000000000000000000

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- ☒ 37 C.F.R. 1.16(a), (f) or (g) (filing fees)

- NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

- ☒ 37 C.F.R. §§ 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a)).

- NOTE: ". . . A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

- NOTE:** Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

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16. Instructions as to Overpayment

NOTE: "... Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).

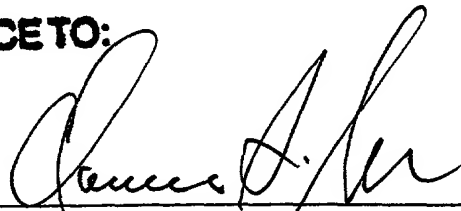
- ☒ Credit Account No. 16-1350
☐ Refund

SEND ALL CORRESPONDENCE TO:

Reg. No. 24,622

Tel. No. (203) 259-1800

Customer No.



SIGNATURE OF PRACTITIONER

Clarence A. Green

(type or print name of attorney)

PERMAN & GREEN, LLP

P.O. Address

425 Post Road
Fairfield, CT 06430

☐ **Incorporation by reference of added pages**

(check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)

- ☐ Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

Number of pages added _____

- ☐ Plus Added Pages for Papers Referred to in Item 4 Above

Number of pages added _____

- ☐ Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.

Number of pages added _____

- ☐ Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added _____

☒ **Statement Where No Further Pages Added**

(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item)

- ☒ This transmittal ends with this page.

Mobile communications device with a camera

The invention relates to a mobile communications device with a camera, which can be used, in addition to normal mobile telephone and data communications, to take photographs.

- 5 From patent document WO 95/00374 it is known a camera integrated into a mobile communications device, wherein the lens of the camera is always exposed like in a normal camera or is brought out from beneath a keypad, being thus protected when the camera is not in use. The lens is released e.g. by moving or lifting the keypad and returned to its place at the same time as the keypad is returned to its place.

- 10 A problem with the known devices is that an unprotected lens of a camera integrated into a mobile communications device is susceptible to dirt and scratches or a protected lens is difficult to bring out and return to the storage position.

From the patent document US 5,666,159 it is known an electronic camera system wherein digital photographs taken with the system are wirelessly transmitted to

- 15 many kinds of remote apparatus.

An object of the invention is to provide an ergonomic mobile communications device with a camera with which photographing is easy and wherein the lens of the camera is protected in such a manner that no special measures are required apart from the normal use of the mobile communications device to bring out the lens.

- 20 The objects are achieved using a construction not unlike the sliding cover in modern mobile communications devices, but at the same time dividing the mobile communications device into two roughly equal parts which are slid as far apart as possible before use. Function keys advantageously include at least three and not more than ten keys. Typical function keys include call start and end keys, arrow
25 keys or corresponding browsing keys and memory management keys. Function keys may also include a known multifunction key.

- The invention pertains to a mobile communications device with a camera, said device comprising a microphone, loudspeaker, display, keypad proper and a camera, and the mobile communications device comprises at least two parts covering each
30 other alternatively completely in the transport position of the camera or partly in the operational position of the camera so that when the parts cover each other in the transport position of the camera the lens of the camera is protected, and in the

operational position of the camera the lens of the camera is exposed. According to the invention an image can be projected through the lens of the camera and the display serves as a viewfinder for the camera by displaying the through the lens projected image to the user of the device and the lens of the camera is placed in the device essentially on a different side than the display.

In accordance with the invention, when the mobile communications device is opened so as to be employed in its proper use, the lens of the camera is brought out from between the parts of the device where it has been well protected from environmental effects such as dust and scratching objects. When in operational state, the mobile communications device can be used for taking photographs preferably by pressing one function key. The display of the mobile communications device serves as a viewfinder when aiming the camera and when the shutter is released, whereafter the image is stored in memory and the picture in the viewfinder is fixed on the display. The mobile communications device is also designed so as to have a shape easy to grip so that when holding the mobile communications device in hand, one would not touch the lens of the camera. Preferred embodiments of the invention are presented in the dependent claims.

The invention will now be described in more detail with reference to the accompanying drawing wherein

- Fig. 1 shows a frontal view of a mobile communications device,
- Fig. 2 shows a rear view of a mobile communications device according to the invention, and
- Fig. 3 shows a block diagram of a mobile communications device according to the invention.

Figs. 1 show a frontal view of a mobile communications device which according to the invention has a camera lens depicted in Fig. 2 in the rear. The mobile communications device comprises two parts, a radio part 1 and a hand part 2 including the keypad proper. In Fig. 1A the mobile communications device is open in its operational position wherein the hand part 2 has been slid out from beneath the radio part 1. In Fig. 1B the mobile communications device is closed but can be used e.g. for calls by means of the function keys. The mobile communications device further comprises an internal antenna 3, radio part 4, microphone 5, loudspeaker 6, display 7, function keys 8, battery 10 and charge interface 11, which can be used also when the mobile communications device is closed in the transport position. In the operational position, also the keypad 9 proper can be used. Furthermore, the

hand part 2 of the mobile communications device has a shape 12 that is easy to grip. Fig. 1A shows in dashed lines both the outlines of the parts 3, 4, 10 inside the phone and the function keypad 8.

5 Figs. 2 show a rear view of a mobile communications device according to the invention. In Fig. 2A the mobile communications device is open in its operational position wherein the lens 13 of the camera according to the invention is exposed and ready to be used for taking photographs. In that state, the radio part 1 and hand part 2 have been slid as far apart as possible. A function key 8 is preferably utilized as a shutter release for the camera. In Fig. 2B the mobile communications device is
10 closed in its storage position and cannot be used for taking photographs, but can be used for telephone calls by means of the function keys 8.

The location of the camera lens 13 on that side of the mobile communications device which is opposite to the display 7 makes it possible for the user to view the object of the photograph simultaneously both naturally past the mobile communications device and on the display 7. This construction is also advantageous to manu-
15 facture as the rear side of the mobile communications device can be manufactured using a single mould and the camera unit can be easily installed on top of a parallel printed circuit board unit in the radio part 1 of the mobile communications device. The lens 13 of the camera is well protected in the location described.

20 The battery 10 of the mobile communications device is located in that part of the mobile communications device which includes the keypad 9 proper in order to place the center of gravity as low as possible to make photographing easier in vertical position.

Fig. 3 shows a block diagram of the essential parts of a mobile communications device according to the invention. Speech voiced into a microphone 4 is taken by means of a transmitter 15 to a duplex switch 16 and further to an antenna 17. Speech received by the antenna 17 is taken by means of a receiver 18 to a loudspeaker 19 to be heard. All functions are controlled by a controller 20 connected to a keyboard 23 for providing input. Such input includes e.g. the release of the shutter of the camera
25 22. Photographs taken with the camera 22 are stored in memory 21 and shown on the display 24.
30

As an example, let us consider the use of the mobile communications device in photography. When the mobile communications device is in transport position, as depicted in Figs. 1B and 2B, the user takes hold of the radio part 1 and hand part 2

and pulls the parts as far apart as possible so that the mobile communications device preferably is activated for dialling or photographing. Alternatively, the mobile communications device is activated for photography using a menu control. When photography is activated, the user sees the image of the viewfinder of the camera on the display 7 of the radio part 1 and can aim the camera. The picture is taken by pressing a key 8, 9 on the mobile communications device so that said key in this mode functions as a shutter release button. The function of the key serving as a shutter release preferably depends on the mode of the mobile communications device and said key is located such that it is easily pressed e.g. with a thumb in order to take the picture. Such a key preferably belongs to the function keys 8 in the mobile communications device described here, but in a device with different proportions it may also be located elsewhere, such as in the keypad 9 proper, where, however, it is easy to use considering the size of the device. The function of the key may be different in call and photo modes but it may also vary within those modes. A key that functions permanently as a shutter release is also possible, but it cannot be used during normal mobile communications.

As the shutter is released the image in the viewfinder is fixed on the display 7, showing the picture that was taken and stored preferably in the device's own memory, but in principle it is possible to use alternatively or in addition separate additional memory in order to increase the number of pictures that can be stored.

Pressing the shutter release button causes the camera to shake slightly, and to reduce blurredness caused by the shake the device waits for a user-selectable period of time after the shutter release button has been pressed before storing the image in memory. Said delay can be menu-selected preferably between 0 to 1 seconds at 200 ms steps.

Having pressed the shutter release button and when the image is fixed on the display the photographer can check whether the picture is good, as regards e.g. the composition and lighting, and then either save the picture or take a new one. The picture is stored in the memory of the mobile communications device preferably in compressed format to save memory space; one such compression algorithm is the JPEG (Joint Photographers Experts Group) algorithm. A stored image can be further transmitted e.g. to a personal computer (PC) using an infrared or wire link, to an electronic mail system or to another mobile communications device via air interface or to a fax machine, for example.

Stored images can be used in the mobile communications device e.g. in a telephone directory with pictures.

The invention is not limited to the embodiments described above, but many modifications are possible within the scope of the inventive idea defined by the claims set forth below.

The invention is not limited to the embodiments described above, but many modifications are possible within the scope of the inventive idea defined by the claims set forth below.

Claims

1. A mobile communications device with a camera, comprising a microphone (5), a loudspeaker (6), a display (7), keypad (9) proper, and a camera, and the mobile communications device comprises at least two parts (1, 2) covering each other alternatively completely in the transport position of the camera or partly in the operational position of the camera so that when the parts (1, 2) cover each other in the transport position of the camera the lens (13) of the camera is protected, and in the operational position of the camera the lens (13) of the camera is exposed, **characterized** in that an image can be projected through the lens (13) of the camera and the display (7) serves as a viewfinder for the camera by displaying the through the lens projected image to the user of the device and the lens (13) of the camera is placed in the device essentially on a different side than the display (7).
2. The mobile communications device of claim 1, **characterized** in that the device also comprises function keys (8) and the device can be used for telephone calls by means of the microphone (5), the loudspeaker (6), the display (7) and the function keys (8) even when the lens (13) of the camera is covered.
3. The mobile communications device of claim 1, **characterized** in that the parts (1, 2) covering each other partly or completely move by sliding with respect to each other.
4. The mobile communications device of claim 1, **characterized** in that the part (2) including the keypad (9) proper of the mobile communications device has in it a shaped grip (12) to make it easier to hold the mobile communications device in hand when used for taking photographs.
5. The mobile communications device of claim 1, **characterized** in that a photograph is taken by pressing a button the function of which varies in accordance with the operating mode of the mobile communications device.
6. The mobile communications device of claim 1, **characterized** in that the battery (10) of the mobile communications device is located in that part of the mobile communications device which includes the keypad (9) proper in order to place the center of gravity as low as possible to make photographing easier in vertical position.

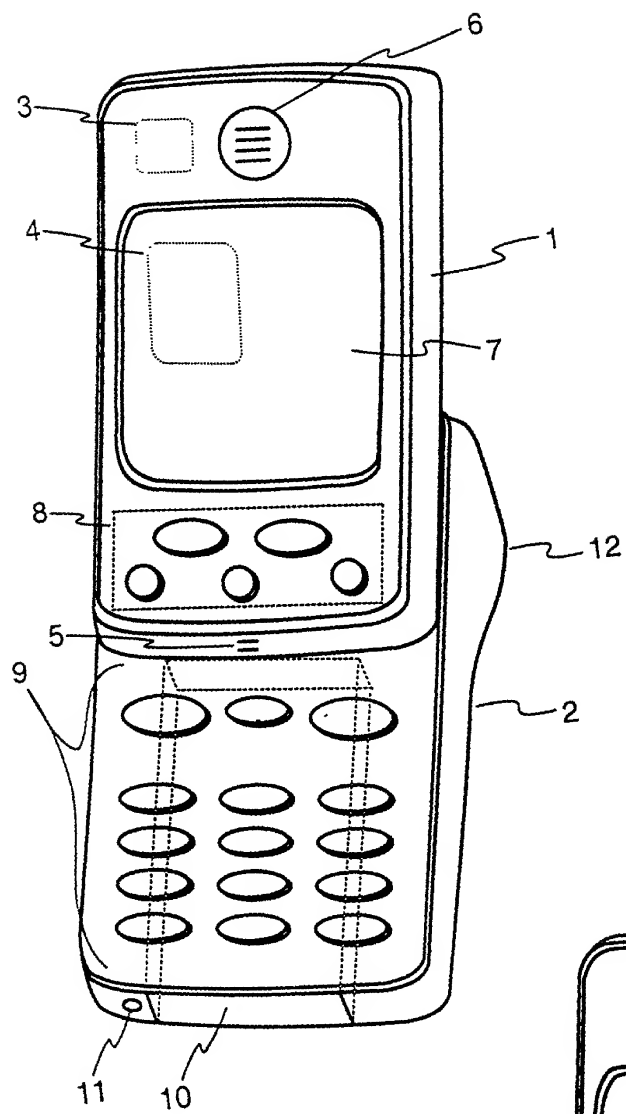


FIGURE 1A

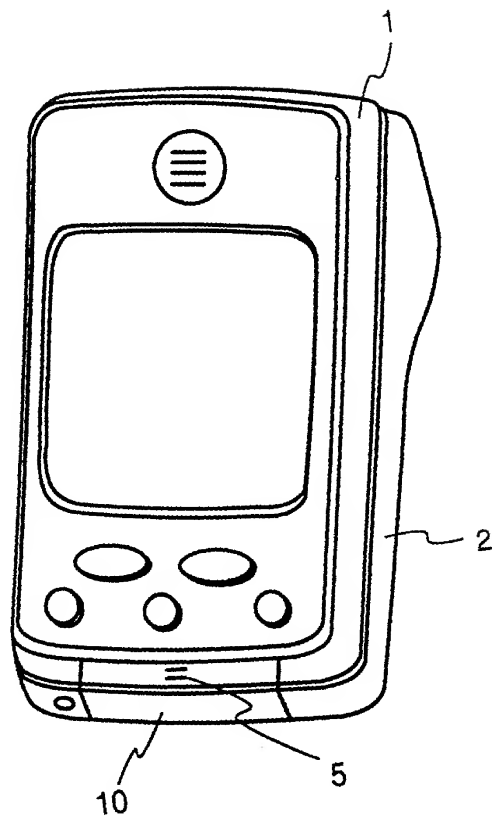


FIGURE 1B

FIGURE 2A

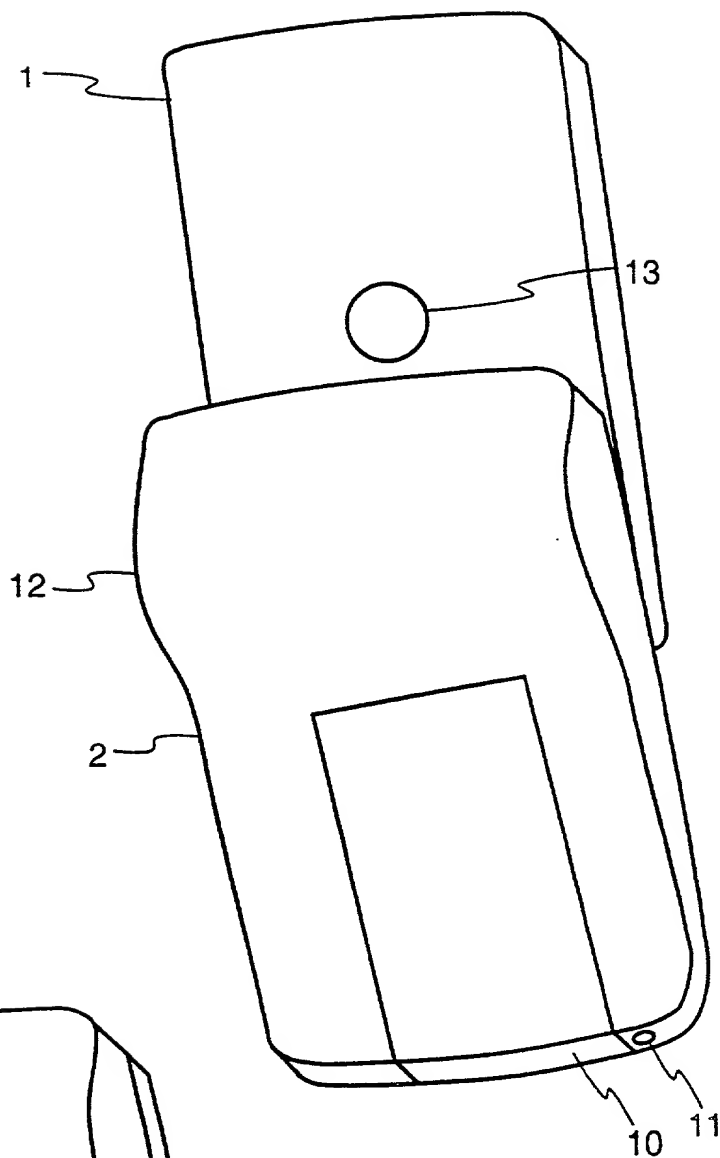
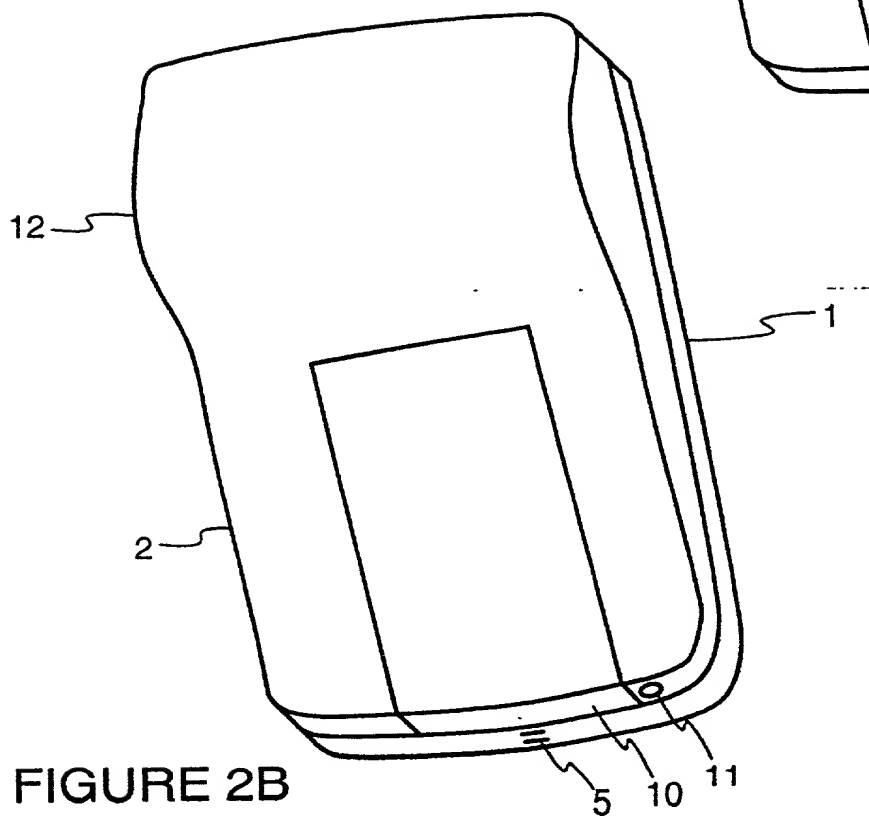


FIGURE 2B



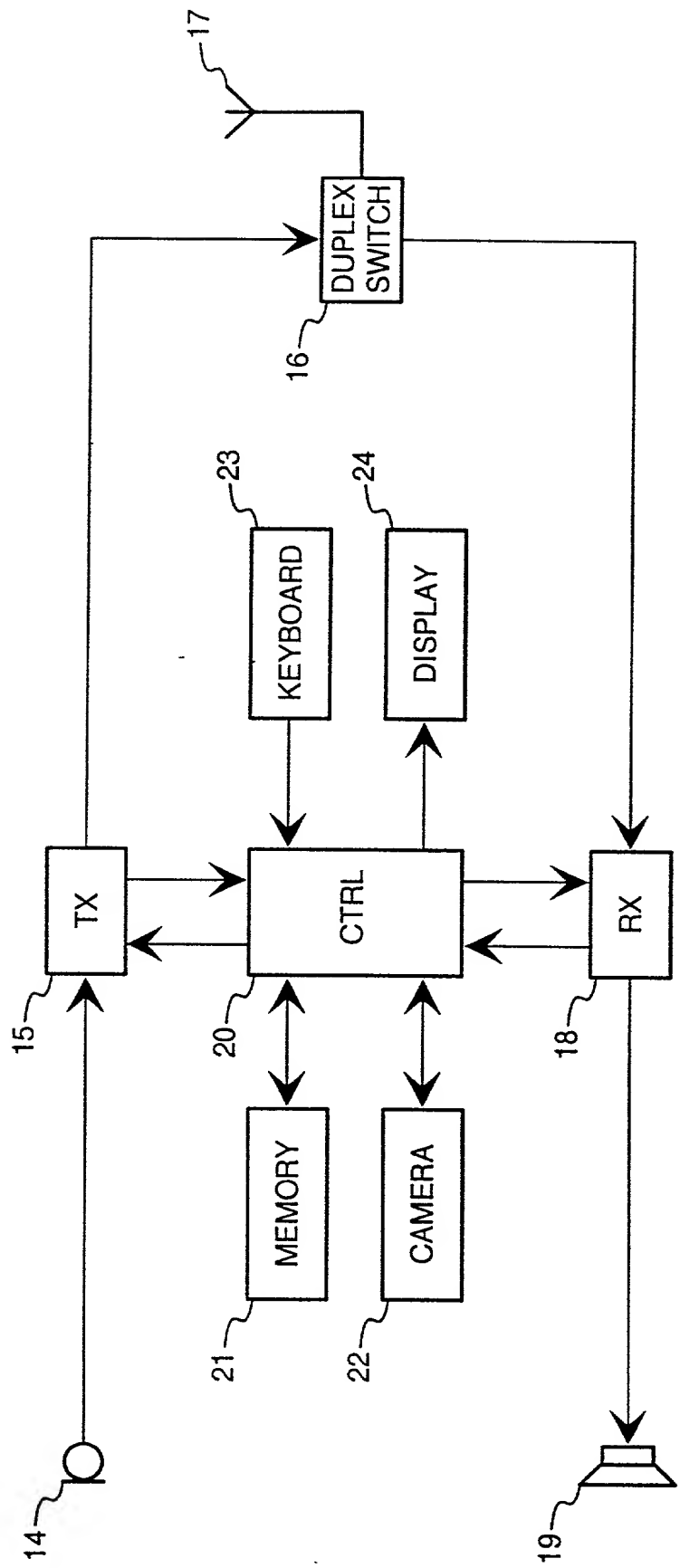


FIGURE 3

Attorney's Docket No. _____

PATENT

**COMBINED DECLARATION AND POWER OF ATTORNEY
(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL,
DIVISIONAL, CONTINUATION OR C-I-P)**

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type:

(check one applicable item below)

- ☒ original.
☐ design.
☐ supplemental.

NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.

- ☐ national stage of PCT.

NOTE: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

- ☐ divisional.
☐ continuation.
☐ continuation-in-part (C-I-P).

INVENTORSHIP IDENTIFICATION

WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (*if only one name is listed below*) or an original, first and joint inventor (*if plural names are listed below*) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

Mobile communications device with a camera

SPECIFICATION IDENTIFICATION

the specification of which:

(complete (a), (b) or (c))

(a) X is attached hereto.

(b) ___ was filed on _____, as ___ Serial No. 0 / _____
or ___ Express Mail No., as Serial No. not yet known _____
and was amended on _____ *(if applicable)*.

NOTE. Amendments filed after the original papers are deposited with the PTO that contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.

(c) ___ was described and claimed in PCT International Application No. _____, filed on _____ and as amended under PCT Article 19 on _____ *(if any)*.

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

(also check the following items, if desired)

X and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

___ in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

(d) ___ no such applications have been filed.

(e) X such applications have been filed as follows.

NOTE. Where item (c) is entered above and the International Application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY(OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119	
Finland	981274	4 June 1998	<u>X</u> YES	NO___
			___YES	NO___
			___YES	NO___
			___YES	NO___
			___YES	NO___

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)
(34 U.S.C. § 119(e))**

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER

FILING DATE

**CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)
UNDER 35 U.S.C. 120**

— The claim for the benefit of any such applications are set forth in the attached
ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY
FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN PART (C-I-P)
APPLICATION.

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

NOTE. If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

(list name and registration number)

Clarence A. Green (24,622)
Harry F. Smith (32,493)
Mark F. Harrington (31,686)

(check the following item, if applicable)

— Attached, as part of this declaration and power of attorney, is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

SEND CORRESPONDENCE TO DIRECT TELEPHONE CALLS TO:

(Name and telephone number)

Clarence A. Green Clarence A. Green
Perman & Green 203-259-1800
425 Post Road
Fairfield, Ct 06430

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

NOTE: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor:

Given name: Pekka
Middle initial or name:
Family (or last name): LONKA

Inventor's signature:



Date:

14.5.1999

Country of Citizenship: Finland
Residence: Paasionkatu 5, FIN-24100 SALO, Finland
Post Office Address: Paasionkatu 5, FIN-24100 SALO, Finland

Full name of second joint inventor, if any:

Given name:
Middle initial or name:
Family (or last name):

Inventor's signature:

Date:

Country of Citizenship:
Residence:
Post Office Address:

Full name of third joint inventor, if any:

Given name:
Middle initial or name:
Family (or last name):

Inventor's signature:

Date:

Country of Citizenship:
Residence:
Post Office Address:

(check proper box(es) for any of the following added page(s)
that form a part of this declaration)

___ **Signature** for fourth and subsequent joint inventors. *Number of pages added* ____.

* * *

___ **Signature** by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. *Number of pages added* ____.

* * *

___ **Signature** for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. *Number of pages added* ____.

* * *

___ Added page for **signature** by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time. (37 CFR 1.47)

* * *

___ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

___ Number of pages added _____

* * *

___ Authorization of attorney(s) to accept and follow instructions from representative.

* * *

(if no further pages form a part of this Declaration,
then end this Declaration with this page and check the following item)

X This declaration ends with this page.